

In the Claims:

Please amend claims 10, 11 and 16. Please add new claims 30-34. The claims are as follows:

1. - 9. (Cancelled)

10. (Currently Amended) A method for fabricating a fuse for a semiconductor device, comprising:

providing a substrate;

forming a first dielectric layer on a top surface of said substrate;

forming a dielectric mandrel on a top surface of said first dielectric layer;

forming a second dielectric layer on top of said mandrel and a top surface of said first dielectric layer;

forming contact openings down to said substrate in said first and second dielectric layers on opposite sides of said mandrel, leaving dielectric material of said second dielectric layer between said mandrel and each of said contact openings;

removing said ~~first~~ second dielectric layer from over said mandrel between said contact openings to form a trough; and

filling said trough and contact openings with a conductor.

11. (Currently Amended) ~~The method of claim 10, further including~~ A method for fabricating a fuse for a semiconductor device, comprising:

10/675,177

3

providing a substrate;
forming a first dielectric layer on a top surface of said substrate;
forming a dielectric mandrel on a top surface of said first dielectric layer;
forming a second dielectric layer on top of said mandrel and a top surface of said first
dielectric layer;
forming contact openings down to said substrate in said first and second dielectric layers
on opposite sides of said mandrel;
removing said second dielectric layer from over said mandrel between said contact
openings to form a trough;
removing a portion of said first dielectric layer between each contact opening and said
mandrel; and
filling said trough and contact openings with a conductor.

12. (Original) The method of claim 11, further including forming a conductive liner in said trough and contact openings and over said mandrel.

13. (Original) The method of claim 11, wherein said conductor comprises copper, aluminum or aluminum-copper, aluminum-copper-silicon or aluminum alloy.

14. (Original) The method of claim 11, wherein said dielectric mandrel is selectively etchable with respect to said first and second dielectric layers.

15. (Original) The method of claim 11, wherein:

said dielectric mandrel is selected from the group consisting of silicon nitride, silicon carbide, boron nitride and aluminum oxide; and

said first and second dielectric layers are selected from the group consisting of silicon oxide, silicon nitride, diamond, fluorine doped silicon oxide, spin on glass, porous silicon oxide, polyimide, polyimide siloxane, polysilsequioxane polymer, benzocyclobutene, paralyene, polyolefin, poly-naphthalene, fluoropolymer resin, polyphenylene oligomer, methane doped silica, polymer foam and aerogel.

16. (Currently Amended) A method for fabricating a fuse for a semiconductor device, comprising:

providing a substrate;

forming a first dielectric layer on a top surface of said substrate;

forming a dielectric mandrel on a top surface of said first dielectric layer;

forming a second dielectric layer on top of said mandrel and a top surface of said first dielectric layer;

forming, in a first region, contact openings down to said substrate in said first and second dielectric layers on opposite sides of said mandrel;

removing said first second dielectric layer from over said mandrel and said first dielectric layer and a portion of said first dielectric layer between said contact openings and said mandrel to form a trough and simultaneously, in a second region, removing said first dielectric layer and a portion of said second dielectric to form a trench; and

filling said trough and contact openings with a conductor to form a fuse and filling said trench with the conductor to form a wire.

17. (Original) The method of claim 16, further including forming a conductive liner in said trough and contact openings and over said mandrel and in said trench.

18. (Original) The method of claim 16, wherein said conductor comprises copper, aluminum or aluminum-copper, aluminum-copper-silicon or aluminum alloy.

19. (Original) The method of claim 16, wherein said dielectric mandrel is selectively etchable with respect to said first and second dielectric layers.

20. (Original) The method of claim 16, wherein:

said dielectric mandrel is selected from the group consisting of silicon nitride, silicon carbide, boron nitride and aluminum oxide; and

said first and second dielectric layers are selected from the group consisting of silicon oxide, silicon nitride, diamond, fluorine doped silicon oxide, spin on glass, porous silicon oxide, polyimide, polyimide siloxane, polysilsequioxane polymer, benzocyclobutene, paralyene, polyolefin, poly-naphthalene, fluropolymer resin, polyphenylene oligomer, methane doped silica, polymer foam and aerogel.

21. - 29. (Cancelled)

10/675,177

6

30. (New) The method of claim 10, further including removing a portion of said first dielectric layer between each contact opening and said mandrel.

31. (New) The method of claim 30, further including forming a conductive liner in said trough and contact openings and over said mandrel.

32. (New) The method of claim 30, wherein said conductor comprises copper, aluminum or aluminum-copper, aluminum-copper-silicon or aluminum alloy.

33. (New) The method of claim 30, wherein said dielectric mandrel is selectively etchable with respect to said first and second dielectric layers.

34. (New) The method of claim 30, wherein:

said dielectric mandrel is selected from the group consisting of silicon nitride, silicon carbide, boron nitride and aluminum oxide; and

said first and second dielectric layers are selected from the group consisting of silicon oxide, silicon nitride, diamond, fluorine doped silicon oxide, spin on glass, porous silicon oxide, polyimide, polyimide siloxane, polysilsequioxane polymer, benzocyclobutene, paralyne, polyolefin, poly-naphthalene, fluopolymer resin, polyphenylene oligomer, methane doped silica, polymer foam and aerogel.